

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: ROUND POND	Lake Area (ha):	4.05
Town: EATON	Maximum depth (m):	5.8
County: Carroll	Mean depth (m):	3.4
River Basin: Saco	Volume (m ³):	137000
Latitude: 43°53'36" N	Relative depth:	2.5
Longitude: 71°04'14" W	Shore configuration:	1.12
Elevation (ft): 468	Areal water load (m/yr):	49.69
Shore length (m): 800	Flushing rate (yr ⁻¹):	14.70
Watershed area (ha): 330.4	P retention coeff.:	0.36
% watershed ponded: 3.1	Lake type:	natural

BIOLOGICAL:

28 February 1994

9 September 1993

DOM. PHYTOPLANKTON (% TOTAL)	#1	SYNURA 50%	CHRYSPHAERELLA 50%
	#2	MELOSIRA 45%	DINOBRYON 25%
	#3		
PHYTOPLANKTON ABUNDANCE (cells/mL)			655
CHLOROPHYLL-A (µg/L)			4.38
DOM. ZOOPLANKTON (% TOTAL)	#1	KERATELLA 23%	KERATELLA 77%
	#2	KELICOTTIA 19%	ACTINOPHRYS 10%
	#3		NAUPLIUS LARVA 6%
ROTIFERS/LITER		35	458
MICROCRUSTACEA/LITER		13	65
ZOOPLANKTON ABUNDANCE (#/L)		57	581
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			4.0
BOTTOM DISSOLVED OXYGEN (mg/L)		5.9	0.3
BACTERIA (E. coli, #/100 ml)	#1		< 1
	#2		
	#3		

SUMMER THERMAL STRATIFICATION:

stratified

Depth of thermocline (m): 3.5
Hypolimnion volume (m³): None
Anoxic volume (m³): 2500

CHEMICAL:

Lake: ROUND POND

Town: EATON

	28 February 1994		9 September 1993		
DEPTH (m)	2.0	4.0	1.5		4.0
pH (units)	6.5	6.5	7.2		7.0
A.N.C. (Alkalinity)	15.8	18.8	19.1		20.8
NITRATE NITROGEN	0.15	0.15	< 0.02		< 0.02
TOTAL KJELDAHL NITROGEN	0.08	0.13	0.13		0.20
TOTAL PHOSPHORUS	0.010	0.012	0.005		0.007
CONDUCTIVITY (μ mhos/cm)	79.8	84.3	82.7		86.8
APPARENT COLOR (cpu)	6	6	12		16
MAGNESIUM			0.99		
CALCIUM			7.6		
SODIUM			6.8		
POTASSIUM			0.68		
CHLORIDE	8	9	11		11
SULFATE	5	5	5		4
TN : TP	23	23	26		29
CALCITE SATURATION INDEX			1.9		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1993

D.O. S.D. PLANT CHL TOTAL CLASS

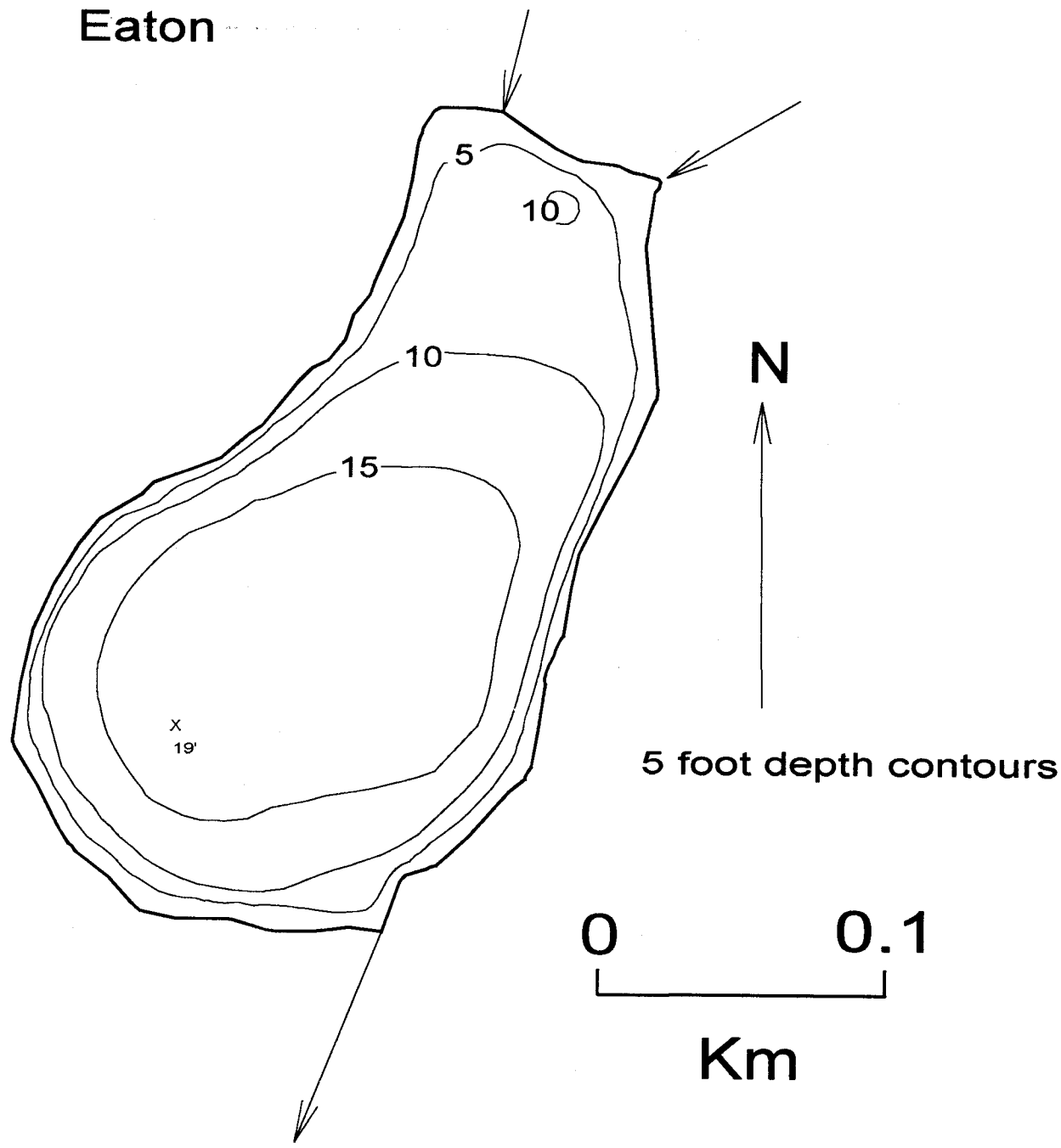
**	2	0	1	3	Oligo.
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COMMENTS:

- Also known as Thirston Pond and Chase Pond.
- This is the small pond located between Hatch Pond and Long Pond along Route 153 in Eaton. It is not named on the topographic maps.
- This is a circumneutral pond (pH around 7) with a good buffering capacity (A.N.C.) for a New Hampshire lake. Chlorides were slightly elevated, probably from road salt.
- There was no public access available.
- Zooplankton were abundant.
- Chroomonas (20%), Elakatothrix (10%) and tiny green flagellates (10%) were the dominant genera of wholewater phytoplankton.

Round Pond

Eaton



[illegible]

TOWN: EATON
WEATHER: PARTLY SUNNY & BREEZY; 70'S

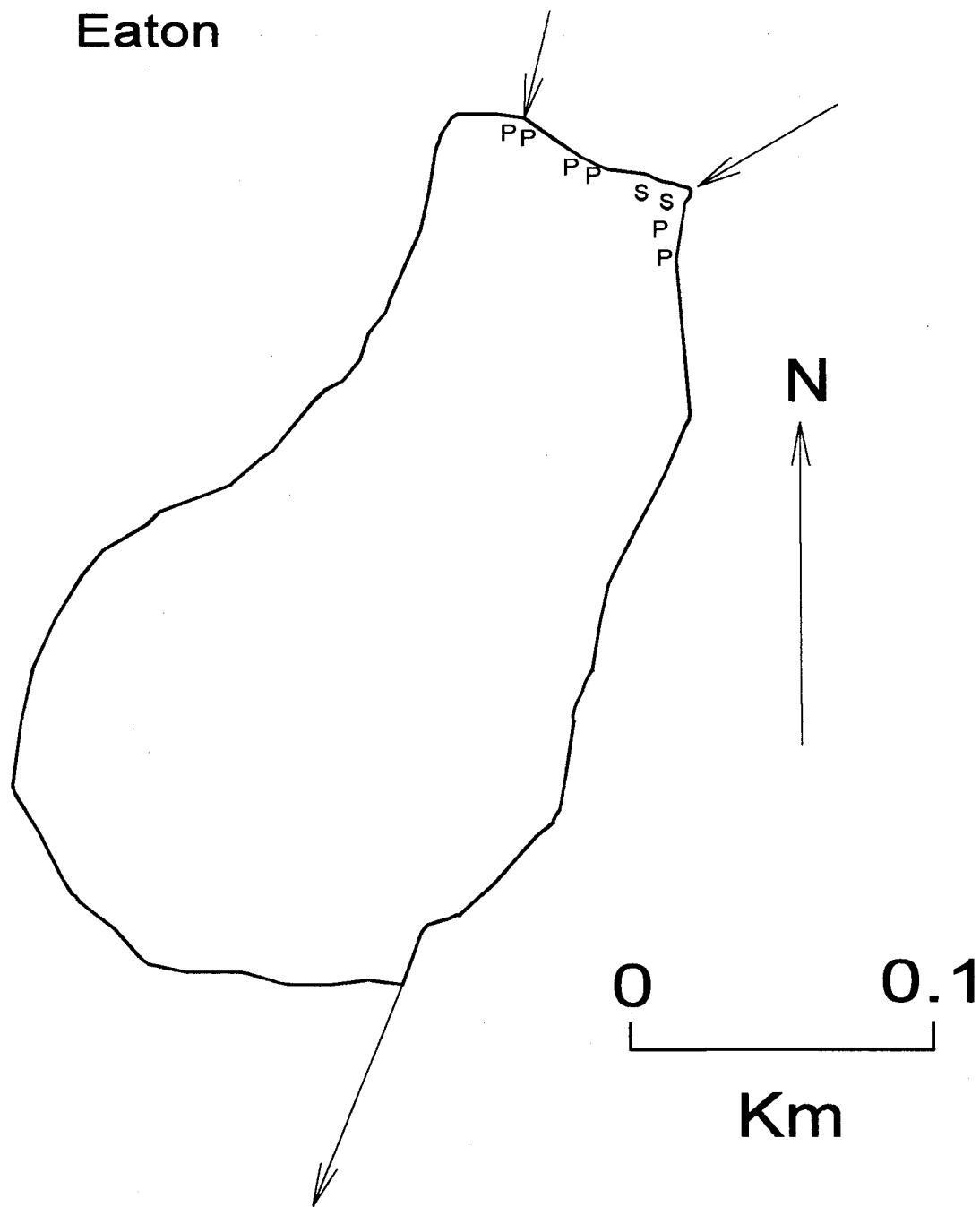
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COMMENTS :

*Dissolved oxygen values are in mg/L

Round Pond

Eaton



AQUATIC PLANT SURVEY

LAKE: ROUND POND	TOWN: EATON	DATE: 09/09/93
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LAKE: ROUND POND	TOWN: EATON	DATE: 09/09/93
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LAKE: ROUND POND	TOWN: EATON	DATE: 09/09/93
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[illegible]

OVERALL ABUNDANCE: Sparse

GENERAL OBSERVATIONS:

- | | |
|----|---------------------------------------------------------------|
| 1. | Very few plants were observed; no submerged growth was found. |
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